



APPALACHIAN
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November 20, 2017

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EPA, REGION III
OFFICE OF REGIONAL ADMINISTRATOR

James H. Booth
President
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Lovely, KY 41231

By Certified Mail – Return Receipt Requested

**Re: 60-Day Notice of Intent to File Citizen Suit Under Clean Water Act and
SMCRA for Violations at Fola's Ike Fork No. 1 Surface Mine**

Dear Mr. Booth:

The Sierra Club, Ohio Valley Environmental Coalition, the West Virginia Highlands Conservancy, and the West Virginia Rivers Coalition (collectively "WV Environmental Groups"), in accordance with section 505(b)(1) of the Clean Water Act ("CWA"), 33 U.S.C. § 1365(b)(1) and 40 C.F.R. Part 135, hereby notify you that Fola Coal Company, LLC ("Fola") and Southeastern Land, LLC ("Southeastern") have violated and continue to violate "an effluent standard or limitation" under Section 505(a)(1)(A) of the Act, 33 U.S.C. § 1365(a)(1)(A) and (f)(6), by failing to comply with conditions in the terms and conditions of its WV/NPDES Permit No. WV1017951 issued by the West Virginia Department of Environmental Protection (WVDEP) for its Ike Fork No. 1 Surface Mine in Clay and Nicholas Counties, West Virginia. If within sixty days of the postmark of this letter Fola and Southeastern do not bring themselves into full compliance with the Act, we intend to file a citizen's suit. The WV Environmental Groups will seek declaratory and injunctive relief for Fola's and Southeastern's ongoing and continuing violations and an injunction compelling Fola and Southeastern to come into compliance with the Act.

We further notify you, in accordance with section 520 of the federal Surface Mining Control and Reclamation Act ("SMCRA"), 30 U.S.C. § 1270, and 30 C.F.R. § 700.13, that Fola and Southeastern are in ongoing and continuing violation of certain federal and state regulations promulgated under SMCRA and the West Virginia Surface Coal Mining and Reclamation Act ("WVSCMR" or the "State Act") and certain permit conditions of its West Virginia Surface Mining Permit No. S201298 as a result of their discharges of pollutants into Sycamore Run. If, within sixty days, Fola and Southeastern do not bring themselves into full compliance with SMCRA, the regulations promulgated under SMCRA and the WVSCMR, and its Surface Mining Permit, the WV Environmental Groups intend to file a citizens' suit in federal court seeking an injunction compelling Fola and Southeastern to come into compliance with the applicable statutes, regulations, and permits.

Southeastern purchased the Ike Fork No. 1 Surface Mine from Fola Coal Company, LLC pursuant to Purchase and Sale Agreement that was effective on July 19, 2016. At the time of this

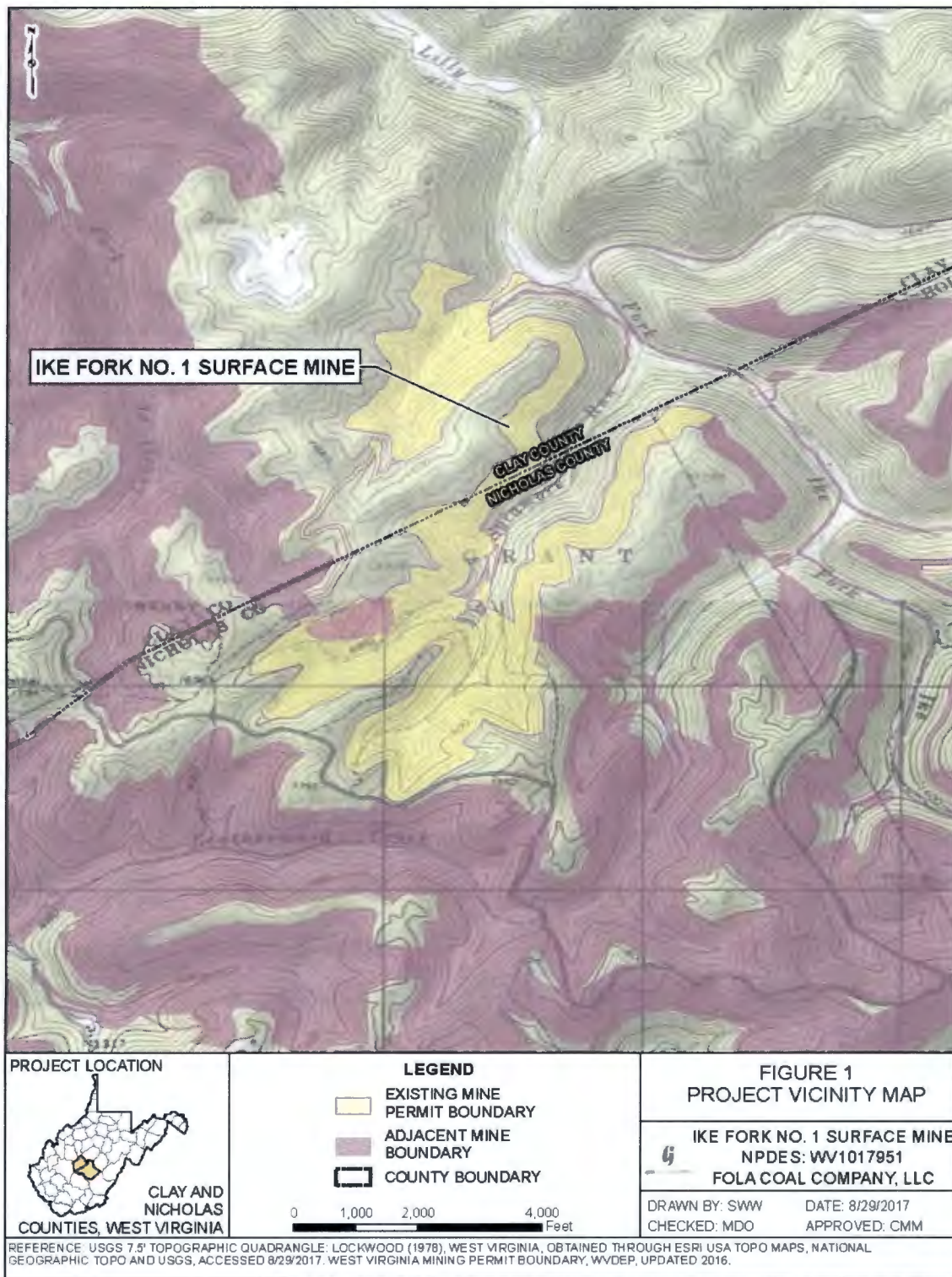
letter, the CWA and SMCRA permits are still in Fola's name, and may be in the process of being transferred to Southeastern. In the remainder of this letter, we will refer to the permittee as Fola.

Violations of Mining Permit. Fola's mining activities at the Ike Fork No. 1 mine are regulated under West Virginia Surface Mining Permit S201298. That Permit was renewed on February 16, 2017 and is still in effect. The WVSCMRA provides that "[a]ny permit issued by the director pursuant to this article to conduct surface mining operations shall require that the surface mining operations meet all applicable performance standards of this article and other requirements set forth in legislative rules proposed by the director." W. Va. Code § 22-3-13(a). In turn, WVDEP's regulations under that statute provide that "[t]he permittee shall comply with the terms and conditions of the permit, all applicable performance standards of the Act, and this rule." 38 C.S.R. § 2-3.33.c. As shown below in Part I, Fola is violating the standards that "[d]ischarge from areas disturbed by surface mining shall not violate effluent limitations or cause a violation of applicable water quality standards." *Id.* § 2-14.5.b; 30 C.F.R. § 816.42. In addition, Fola is violating the performance standard that requires it to construct systems that will effectively treat its effluent to levels that comply with all applicable water quality standards. 38 C.S.R. § 2-14.5.c.

Violations of WV/NPDES Permit. Fola's water discharge activities at the Ike Fork No. 1 mine are regulated under WV/NPDES Permit No. WV1017951. That permit was reissued on March 12, 2014 to Fola and is still in effect. Part C of that permit incorporates by reference 47 C.S.R. § 30-5.1.f, which provides that: "The discharge or discharges covered by a WV/NPDES permit are to be of such quality so as not to cause violation of applicable water quality standards adopted by the Department of Environmental Protection, Title 47, Series 2." WVDEP's narrative water quality standards prohibit discharges of "[m]aterials in concentrations which are harmful, hazardous or toxic to man, animal or aquatic life" or that cause "significant adverse impacts to the chemical, physical, hydrologic, or biological components of aquatic ecosystems." 47 C.S.R. §§ 2-3.2.e & 2-3.2.i. Fola is violating this permit condition by discharging ionic pollutants, measured as conductivity, from Outlet 002 that are causing or materially contributing to biological impairment in Sycamore Run and Lily Fork, and violations of water quality standards in those streams, as described in Part I below.

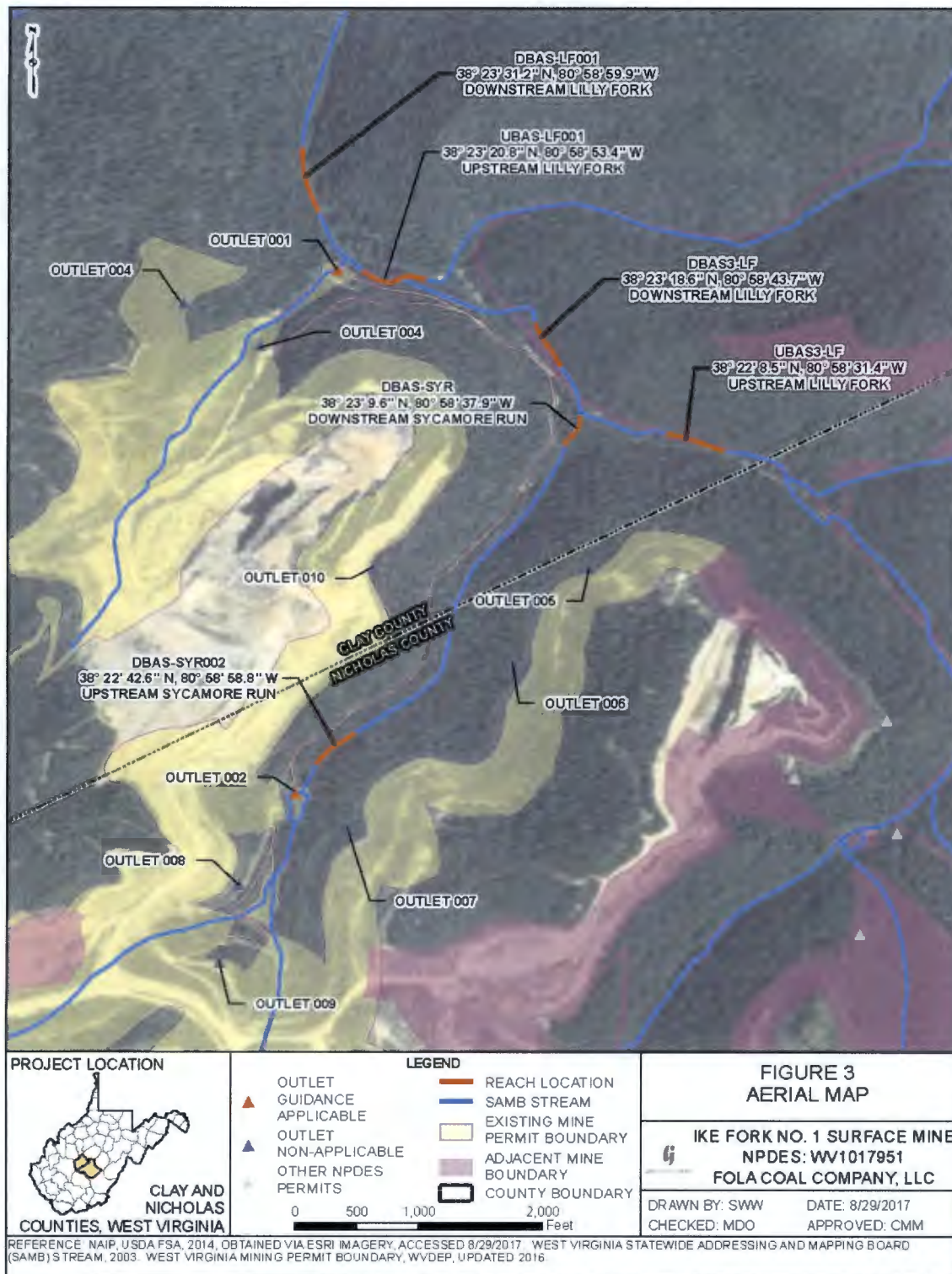
I. Violations of Water Quality Standards at Fola's Ike Fork No. 1 Surface Mine

Permit No. WV1017951 regulates discharges from Outlet 002 of Ike Fork No. 1 Surface Mine, which discharges into Sycamore Run, which flows into Lily Fork, then into Buffalo Creek, and then into the Elk River. A map showing the location of the mine and these streams is below:



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Outlet 002 discharges at the locations shown on the following map:



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WVDEP's March 23, 2001 Cumulative Hydrologic Impact Assessment (CHIA) for Fola's Ike Fork No. 1 Surface Mine stated that in 1999, prior the start of that mine, the pH in Lilly Fork downstream from Sycamore Run ranged from 6.00 to 7.20, total dissolved solids

averaged 210.71 mg/l, and sulfates averaged 127.14 mg/l. CHIA at 19. Between 1989 and 1999, prior to mining, the pH in the main stem of Sycamore Run directly above its confluence with Lilly Fork ranged from 4.10 to 7.20, total dissolved solids averaged 27 mg/l, and sulfates averaged 12.12 mg/l. *Id.* at 28-29. The 1999 Statement of Probable Hydrologic Consequences in Vandalia Resources' application for a mining permit stated that at sampling sites SR-1, SR-2 and SR3 on Sycamore Run, concentrations of TDS, conductivity and sulfate were low, and that "this is typical of an undisturbed watershed." PHC at J-89 to J-90. In addition, prior to mining at the Ike Fork No. 1 site, Fola's consultant, Potesta & Associates, Inc., conducted benthic sampling in Sycamore Run at Location IF-19, which was downstream from planned Outlet 002. The conductivity at that location was 43 μ S/cm, the habitat assessment score was 130, and the WVSCI score was 84.85. Fola, Results of Fish and Benthic Macroinvertebrate Surveys (Oct. 2006), at 8, 12, 16.

Fola's discharge monitoring reports since July 2016 show that it discharged the following maximum amounts of specific conductance (Cond), pH, calcium (Ca), magnesium (Mg), sodium (Na), potassium (K), sulfates (SO₄) and total dissolved solids (TDS) from Outlet 002:

Table A—Outfall 002								
	Cond	pH	Ca	Mg	Na	K	SO₄	TDS
Jul-16	2500	8.45	186	194	153	15.5	1480	2150
Aug-16	2460	8.44	169	199	132	15.9	1380	2130
Sep-16	2500	8.01	182	213	150	17.6	1600	2190
Oct-16	2550	8.65	172	202	160	17.3	1500	2070
Nov-16	2380	8.85	152	177	170	16.1	1460	2010
Dec-16	2520	8.7	173	196	168	16	1530	2110
Jan-17	1940	8.9	156	161	86.1	13.5	1200	1610
Feb-17	2240	8.98	175	184	95.8	15	1310	1850
Mar-17	2120	8.7	177	192	98.2	14.4	1320	1820
Apr-17	2120	8.65	145	163	93.8	13.5	1160	1660
May-17	2100	8.9	147	173	110	13.5	1230	1720
Jun-17	2310	8.81	146	184	137	15.1	1300	2270

In May 2012, May 2015, May 2016, and May 2017, Fola's consultants conducted benthic macroinvertebrate, instream habitat, and water quality sampling at six biological assessment stations (BAS) at the Ike Fork No. 1 Surface Mine. Four of those relate to Outlet 002. Station DBAS-SYR002 was located in Sycamore Run, immediately downstream from Outlet 002. Station DBAS-SYR was located in Sycamore Run, near its confluence with Lilly Fork. Station UBAS3-LF was located in Lilly Fork, upstream of its confluence with Sycamore Run. Station DBAS3-LF was located in Lilly Fork, downstream of its confluence with Sycamore Run. These four locations are shown on the map on page 4 above. The results of this sampling are contained in the table below:

Table B				
Station	Date	Habitat Score	WVSCI Score	Conductivity
DBAS-SYR002	5/23/12	139	53.3	1850
	5/19/15	140	35.4	2642
	5/24/16	149	53.4	2257
	5/30/17	154	52.1	2200
DBAS-SYR	5/23/12	154	65.3	1589
	5/19/15	142	70.9	2218
	5/24/16	151	59.1	2061
	5/30/17	156	60.1	2095
UBAS3-LF	5/23/12	147	56.4	1130
	5/19/15	155	54.0	1608
	5/24/16	158	54.5	1065
	5/30/17	155	53.8	1437
DBAS3-LF	5/23/12	160	64.3	1184
	5/19/15	163	75.8	1646
	5/24/16	161	64.4	1255
	5/30/17	157	63.7	1370

According to WVDEP's draft 2016 Section 303(d) List (p. 8), streams are biologically impaired when their West Virginia Stream Condition Index (WVSCI) scores are below 72. The reported WVSCI scores at the three stations downstream from Outlet 002 were below 72 in all but one instance in 2012, 2015, 2016 and 2017. The habitat scores at all three stations were in the optimal or sub-optimal range. Therefore, the low WVSCI scores cannot be explained by poor habitat.

In 2011, EPA scientists summarized the existing science connecting conductivity and biological degradation in an EPA report entitled, "A Field-Based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams." That report, which was peer-reviewed by top scientists on EPA's Science Advisory Board, used EPA's standard method for deriving water quality criteria to derive a conductivity benchmark of 300 $\mu\text{S}/\text{cm}$. *Id.* at xiv-xv. According to the species sensitivity distribution in the benchmark, on average, five percent of species are lost when conductivity rises to 295 $\mu\text{S}/\text{cm}$, over 50% are lost at 2000 $\mu\text{S}/\text{cm}$, and close to 60% are lost at 3000 $\mu\text{S}/\text{cm}$. *Id.* at 18. EPA considered potential confounding factors, including habitat, temperature, deposited sediments and pH, and concluded that none of them altered the relationship between conductivity and biological decline or the benchmark value of 300 $\mu\text{S}/\text{cm}$. *Id.* at 41, B-22. EPA found that the loss of aquatic species from increased conductivity was "a severe and clear effect." *Id.* at A-37. EPA also conducted a detailed causal assessment and concluded that there is a causal relationship between conductivity and stream impairment in West Virginia. *Id.* at A-39. Finally, EPA's benchmark report analyzed the relationship between the WVSCI biological impairment threshold and conductivity levels, and found that a WVSCI score of 64 (close to the impairment threshold of 68) corresponds to streams with conductivity of about 300 $\mu\text{S}/\text{cm}$ on average. *Id.* at A-36. A statistical analysis included in the benchmark

determined that at a conductivity level of 300 $\mu\text{S}/\text{cm}$ a stream is 59% likely to be impaired and at 500 $\mu\text{S}/\text{cm}$ a stream is 72% likely to be impaired. *Id.*

The ions found coming out of Outlet 002 are consistent with those associated with coal mining pollution in this region (Pond et al. 2008; Palmer et al. 2010; Bernhardt and Palmer 2011; Lindberg et al. 2012; Pond et al. 2010; Pond et al. 2012; Pond et al. 2014; Kunz 2013). The ionic mixture of calcium, magnesium, sulfate, and bicarbonate in alkaline mine water causes the loss of aquatic macroinvertebrates in Appalachian areas where surface coal mining is prevalent; it is the mixture of ions that causes the biological impairment (Cormier et al. 2013b; Cormier and Suter 2013). This mixture also has significant adverse effects on fish assemblages (Hitt 2014; Hopkins 2013) and has toxic effects on aquatic life, including mayflies (Kunz 2013; Echols 2010; Kennedy 2002).

Bernhardt et al. (2012) concluded that:

The extent of surface mining within catchments is highly correlated with the ionic strength and sulfate concentrations of receiving streams. Generalized additive models were used to estimate the amount of watershed mining, stream ionic strength, or sulfate concentrations beyond which biological impairment (based on state biocriteria) is likely. We find this threshold is reached once surface coal mines occupy $>5.4\%$ of their contributing watershed area, ionic strength exceeds $308 \mu\text{S cm}^{-1}$, or sulfate concentrations exceed 50 mg L^{-1} .

A 2016 study using simulated mine effluents in an experimental stream under controlled conditions measured the same adverse effects on aquatic organisms at conductivity levels of 300 $\mu\text{S}/\text{cm}$ and lower (Clements and Kotalik 2016).

Fola's Ike Fork No. 1 Surface Mine is a major development activity covering a large area in the Lilly Fork watershed. The high mining intensity in that watershed and the related discharges from Outlet 002 have likely caused or materially contributed to biological impairment in Sycamore Run and Lilly Fork.

In sum, the available evidence shows that, as a result of mining operations at its Ike Fork No. 1 Surface Mine, Sycamore Run has elevated chemical ions, including sulfate, calcium, and magnesium, measured as increased conductivity, and biologically impaired aquatic life. Fola is discharging high levels of ionic pollutants, measured as conductivity, from Outlet 002 that are causing or materially contributing to biological impairment and violations of the narrative water quality standard for biological integrity in Sycamore Run and Lilly Fork.

II. Legal Claims

A. CWA

The CWA authorizes citizens to sue “any person . . . who is alleged to be in violation of . . . an effluent standard or limitation under this chapter.” 33 U.S.C. § 1365(a)(1). An “effluent standard or limitation under this chapter” is defined to include “a permit or condition thereof.”

Id., § 1365(f)(6). A person who violates a condition in a condition of an NPDES permit is therefore in violation of the CWA and subject to a citizen enforcement action under the CWA. Based on the available evidence of continuing high conductivity levels, and the absence of any corrective measures taken by Southeastern since it purchased the mine from Fola in July 2016, we believe that Fola's violations of the narrative water quality standards in 47 C.S.R. § 2-3.2.e & i. are violations of its permit and can be enforced by WV Environmental Groups. The federal court in West Virginia has repeatedly enforced this same standard against mines with similar violations. See *OVEC v. Elk Run Coal Co.*, 24 F. Supp. 3d 532 (S.D. W.Va. 2014); *OVEC v. Fola Coal Co., LLC (Stillhouse)*, 82 F. Supp. 3d 673 (S.D. W.Va. 2015), *aff'd*, 845 F.3d 133 (4th Cir. 2017); *OVEC v. Fola Coal Co. (Leatherwood)*, 120 F. Supp. 3d 509 (S.D. W.Va. 2015); *OVEC v. Fola Coal Co. (Monoc)*, 2017 WL 2312478 (S.D. W.Va. 2017). If Fola does not cease those violations within 60 days, we intend to bring a citizen suit against Fola under Section 505(a)(1) of the CWA seeking declaratory and injunctive relief.

B. SMCRA

Section 520(a)(1) of SMCRA authorizes citizens to commence civil actions against any person alleged to be in violation of rules, orders, or permits issued pursuant to SMCRA. 30 U.S.C. § 1270(a)(1). West Virginia has a federally-approved mining program under SMCRA which is administered by the WVDEP pursuant to the WVSCMRA. Violations of a federally-approved state program are enforceable in federal court under SMCRA's citizen suit provision. *Molinary v. Powell Mountain Coal Co., Inc.*, 125 F.3d 231, 237 (4th Cir. 1997). We believe that Fola is in continuous and ongoing violation of the state and federal performance standards that prohibit mining operations from causing violations of water quality standards. 38 C.S.R. § 2-14.5.b; 30 C.F.R. § 816.42. In addition, Fola's mining operations have resulted in impermissible and ongoing material damage to the hydrologic balance, in violation of 38 C.S.R. § 2-14.5. Fola is also in continuing violation of its legal duty to treat its effluent to ensure that it does not violate water quality standards. 38 C.S.R. § 2-14.5.c; 30 C.F.R. § 816.41(d)(1). These standards require Fola to construct systems that will effectively treat its effluent to levels that comply with all applicable water quality standards. Finally, Fola's violations of the performance standards that prohibit violations of water quality standards and material damage and that require adequate treatment to avoid such violations are violations of its mining permit S201298. By operation of 38 C.S.R. § 2-33.c, those permits incorporate the performance standards discussed in this letter as terms of the permits themselves. Consequently, Fola is violating its SMCRA permit.

CONCLUSION

If Fola has taken any steps to eradicate the underlying cause of the violations described above, or if Fola believes that anything in this letter is inaccurate, please let us know. If Fola does not advise us of any remedial steps during the 60-day period, we will assume that no such steps have been taken and that violations are likely to continue. Additionally, we would be happy to meet with Fola or its representatives to attempt to resolve these issues within the 60-day notice period.

Sincerely,

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